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Editor

Khalid S. Soliman

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Table of Content

Brand Management Practices in Technology Parks and Incubators – An Exploratory Study..... 1
Andrea Lučić, Marina Dabić and Svjetlana Bušić

The Contribution of Accommodation Capacities to the Development of Romanian Tourism…….. 12
Paula Stoicea, Irina-Adriana Chiurciu, Elena Soare and Dragoș-Ion Smedescu

The Aspects of Formation and Development of Possessory Risk Management Systems of Organization in the Russian Economy..... 24
Mikhail V. Khachaturyan, Inga A. Koryagina and Maria Nikishova

Factors Determining Retail Patronage Behavior: The Case of Islamic Retail Store ……. 35
Hendy Mustiko Aji

Evaluation of the Use of Cloud Data Center…….. 50
Alexey V. Bataev

Analysis and Development the Digital Economy in the World..... 61
Alexey V. Bataev

Cognitive Science as a Pivot of Teaching Financial Disciplines..... 72
Ekaterina Yakovlevna Litau

Behavioural Intention of Taxi-Hailing Online App Users…….. 81
Usep Suhud, Setyo Ferry Wibowo, Afif Khairi and Greg Willson

China and Asia: Some Economic Aspects…….. 91
Pukala Ryszard, Kaidarova Saida, Makysh Serik and Zhumanov Kairat

Effects of money attitudes and credit card usage on young Malaysians' compulsive buying…… 96
Shaizatulaqma Kamalul Ariffin, Christopher Richardson, Nabsiah Abdul Wahid and Yusliza Mohd Yusoff

Corporate Reputation, Brand Image, and Brand Loyalty: Do They Influence Purchase Intention of an Artificial Sweetener Customers?..... 110
Usep Suhud and Surianto

Problems and Prospects of Hospitality Industry Development in Modern Russia……. 123
Konstantin B. Kostin

Decision Support System Model for Multi-Use Aquaponics Production Platform…… 138
Gheorghe Adrian Zugravu, Camelia Fasola (Lungeanu), Maria Magdalena Turek Rahoveanu, Ştefan Mihai Petrea, Marian Tiberiu Coadă, Adrian Turek Rahoveanu and Bondari V. Valentina (Suparschii)

Identification of Life Cycle Stages as Part of Environmental Life Cycle Costing in Business Practice…… 147
Michal Biernacki

Simulation Modelling in Solving the Problem of Increasing the Competitiveness of Enterprise Products….. 151
Shchetinina Irina Valerievna, Amelin Stanislav Vitalievich, Volodina Natalia Leonidovna and Elfimova Irina Fedorovna

The Coordination of Regional Economy and Environment from the Perspective of Marketization: A Case of Heilongjiang Province, China……..... 161
Zhu Yue, Liu Tiansen, Liang Dapeng and Song Yazhi

Scenario Method for product cost and price variation analysis…….. 4033
Petre Gheorghe Tiriplică, Maria Magdalena Roşu, Ioan Cristian Tarbă and Ionuţ Gabriel Ghionea

Theory and Practice of Regulation of Reproductive (Parental) Labor in Maintaining the Balance of Family and Work Behavior……. 4043
Irina Lavrentieva, Olga Ryazantseva, Svetlana Voronina and Anna Dolinskaia

Cluster-Agglomeration Effects: Mechanism of Generation and Evaluation ……. 4052
Elena Leonidovna Kornienko, Natalia Vasilievna Motsarenko, Tatiana Mikhailovna Karetnikova and Taya Failevna Amirova

Building Models of Economic Systems Using Cognitive Methods……... 4062
Alexander Gilich Paley, Galina Andreevna Pollack, Elena Alexandrovna Konova and Nadezhda Vyacheslavovna Kalashnikova

Formation of Risk-Oriented Reporting in the System of Assessing the Industrial Enterprise's Financial Potential…….. 4070
Evgenia Anatolievna Gonchar, Leonid Lvovich Zaionchik, Olga Alexeevna Vonchenkova and Maxim Yurievich Gvozdev

Estimation of Decentralization at the Regional Level and Asymmetry of the Economic Federalism Model in Russia…….. 4082
Irina Danilova, Natalya Korotina, Anzhela Karpushkina and Svetlana Sliva

Project Management: Risk Mitigation in a Volatile Environment……. 4095
Jennifer Abou Hamad, Yussef Zgheib and Mirelle Fares

Islamic Taxonomy Practices in Organizational Knowledge: A Preliminary Research…….. 4107
Intan Nurbaizura Zainuddin and Mesdar Sidek

The Impact of the Leader Approach on Romanian Rural Area: Case Study Lag Colinele Prahovei……. 4112
Maria Cristina Paiu and Adrian Turek Rahoveanu

The Impact of the Agricultural Holding Restructuring Measures in the Programming Period 2007-2013….. 4117
Mihaela Felicia G. Stanciu (Florescu), Alina Mariana P. Popa (Podaru) and Adrian Turek Rahoveanu

The Economic and Trade Relations of Serbia with the European Union……... 4125
Branislav Dudić, Martina Drahošová, Zdenka Dudić and Ján Smoleň

Interactive Effects of Exchange Rate Volatility and Foreign Capital Inflows on Economic Growth in Nigeria……. 4136
Ajayi E. Olusuyi, Akinbobola O. Temidayo and Bowale E. Kayode

Risk and Uncertainty in Cultural Projects…….. 4143
Mihaela Bucatariu and Ioana Maria Raluca Bârsan

Organizational and Managerial Infrastructure of Digitalization Processes in Economic Systems of Various Levels…….. 4159
Andrey Polyanin, Tatyana Golovina, Irina Avdeeva, Alexandr Merkulov and Maria Klevtsova

State Regulation and Strategic Management in Clusters…… 4169
Lydmila Pronyaeva, Andrey Polyanin, Anna Pavlova, Alexandr Shchegolev and Yulia Polozhentseva

Factors for Increasing the Competitiveness of the Countries of the Eurasian Economic Union and Other Integration Associations……. 4179
Bulat Mukhamediyev, Zhansaya Ilyassova and Kalieva Assem

Factors for Increasing the Competitiveness of the Countries of the Eurasian Economic Union and Other Integration Associations

Bulat Mukhamediyev, al-Farabi Kazakh National University, Almaty, Kazakhstan,
bmukhamediyev@mail.ru

Zhansaya Ilyassova, al-Farabi Kazakh National University, Almaty, Kazakhstan,
t.zhansaya.s@mail.ru

Kalieva Assem, al-Farabi Kazakh National University, Almaty, Kazakhstan,
assemkalieva@gmail.com

Abstract

In the era of globalization, the development of countries with small open economies largely depends on the intensity of the use of various forms of international economic relations. At the present stage of development, the problem of competitiveness is central to the economic policy of the state. The creation of competitive advantages over competitors becomes a strategic direction of its activities. The purpose of the study is to identify factors that most significantly affect the competitiveness of the economy. A comparative analysis of the countries-participants of the Eurasian Economic Union and other integration associations in the global competitiveness rating was carried out. Multiple regression model based on a sample of 50 countries was constructed to assess the factors affecting competitiveness. The degree of influence of the Global Innovation Index, Index of Economic Freedom and Logistics Performance Index on the Global Competitiveness Index was studied. As a result, it was determined that the innovation index has a significant impact on the competitiveness of the economy. On the example of the economy of Kazakhstan, measures are proposed to stimulate innovation, which can help to increase its competitiveness.

Keywords: competitiveness, integration, innovation, Eurasian Economic Union.

Introduction

Regional economic integration involves the cooperation of individual countries in order to more effectively use their resources by creating favorable conditions for the implementation of effective business activities simultaneously in the markets of several countries.

Regional integration is the creation of economic blocks to enhance competition and diversification of goods. Competitiveness and integration are interrelated processes. When the country is integrated into regional group, the goal is to obtain a certain positive effect, which should raise the competitiveness of the national economy, its industries and enterprises. However, this goal can be realized only under certain conditions. In general, the impact of integration on the competitiveness of the national economy can be expressed in realizing comparative advantages, economic interests, reducing production costs through economies of scale, and improving the economic performance of enterprises and industries primarily at the regional level. However, economic integration affects the competitiveness of national economies in two ways: towards dynamism and strengthening, and towards escalating contradictions and reducing competitiveness. Temirbekova et al. (2015) mentioned, that everything depends on the correctly chosen economic policy, the correct assessment of the economic and political situation in the country, the presence or absence of economic resources.

According to Chirisa et al. (2014), integration is the process by which a group of states voluntarily and to varying degrees gain access to each other's markets and creates mechanisms and methods that minimize conflicts and maximize the internal and external economic, political, social and cultural benefits of their interaction. This concept can be classified as a function and there are four main types of integration. The first is regional cooperation; this cooperation for the implementation of joint

projects, development of common resources facing the rest of the world and joint promotion. The second is integration in the market, and it provides specialization in accordance with the comparative advantages of regional organizations, hence increasing the volume of production and trade as a group in the world. Integration in development is the third. This is the answer to the problems arising from market integration for social and economic development. The fourth type of integration is regional integration. Soomer (2003) defined it simply as "a dynamic process that entails the willingness of a country to share or merge into a larger whole". This means that regional integration comes from the voluntary actions of the co-operating countries.

Gurova (2008) believes that the larger market formed as a result of integration "allows the companies of the united countries to get a positive return on the scale of their activities, as well as to establish closer cooperation, including competitive relations that undermine the positions of the monopolies and lead to increased efficiency".

Kahouli et al. (2012) identified the static and dynamic effects arising from economic integration. The static effects that occur soon after the country's accession to the union are:
- the effect of creating a trade or expanding intraregional trade;
- the effect of trade deviation or the reduction of trade with third countries, even if the costs of production and circulation in these third countries are lower than within the union.

Dynamic effects, emerging gradually in the course of development of integration processes, include:
- expansion of the market of the country in the group, and the resulting increase in the scale of production, and hence, the reduction of costs per unit of output;
- development of the infrastructure of the participating countries;
- stimulating R&D;
- a gradual rise in the standard of living of the population, especially in economically weaker countries, and other effects.

No author is unambiguous about the consequences of integration: integration has both positive and negative effects. In the book by Rusian scientists Kolesov and Osmova (2001) the following were written on this subject: "International economic integration is a difficult, uneven, contradictory and lengthy process, because it proceeds within and on the basis of various cultural and historical types of society; each country has its own historically developed identity, its individual problems and interests".

Thus, when a country joins an integration grouping, it is necessary to take into account all possible consequences in order to prevent a decline in the competitiveness of the national economy.

Competitiveness of the EAEU Countries

The Eurasian Economic Union is an international organization established by the Republic of Belarus, the Republic of Kazakhstan and the Russian Federation with a view to strengthening national economies and increasing the welfare of the population of the member states of the Union. Later, the Union included two more states: the Republic of Armenia and the Kyrgyz Republic.

Spheres governed by the Union derive from the objectives of the Union:
- creation of conditions for the stable development of the economies of member states in order to improve the living standards of their populations;
- the desire to form a single market for goods, services, capital and labor resources within the Union;
- comprehensive modernization, cooperation and increasing competitiveness of national economies in the global economy.

Within the new stage of integration - the creation of an economic union - the greatest possible freedom of movement of goods, services, capital, labor resources will be ensured. The economy benefits from equal access to services of natural monopolies in the implementation of procurement,

uniform rules on competition, the deepening of cooperation in the industrial, transport, energy and agricultural sectors.

Today, 3 years after the founding of the EAEU, it is possible to analyze the results of the economic development of the participating countries. Evaluation of results for the countries of the Union can be carried out through the competitiveness of the economies of the countries included in it. The competitiveness of the economy is estimated using the global competitiveness index.

The global competitiveness index is a global study and the accompanying rating of the countries of the world in terms of economic competitiveness, calculated according to the methodology of the World Economic Forum. It defines national competitiveness as the ability of the country and its institutions to ensure stable economic growth rates that would be sustainable in the medium term. The authors of the report of global competitiveness emphasize that countries with high levels of national competitiveness tend to provide a higher level of well-being for their citizens.

Table 1: Rating of the countries of the EAEU on the global competitiveness index, 2012-2018

Country	GCI rating					
	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Kazakhstan	51	50	50	42	53	57
Russia	67	64	53	45	43	38
Armenia	82	79	85	82	79	73
Kyrgyzstan	127	121	108	102	111	102
Belarus*	92	98	90	87	84	78
Note - *Evaluation of the Mises Research Center "Strategy", was compiled by the author on the basis of sources (Global Competitiveness Report 2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017, 2017-2018, Data of Mises Research Center "Strategy")						

According to Table 1, almost all the countries-members of the EAEU have improved their positions in the rating in recent years, with the exception of Kazakhstan, which lost its positions in the last 2 years (from 42 to 57). But among the countries-participants of the EAEU Kazakhstan still occupies one of the leading positions. The best indicator for Russia is 38 out of 137 in the rating of 2017-2018, it is worth noting that Russia is rapidly improving its positions every year. Armenia is on the 73rd position, having improved its position (2012-2013, 82nd position). And the last is followed by Kyrgyzstan, taking 102nd place in this rating. Nevertheless, Kyrgyzstan showed a significant improvement in its positions, moving from 127th place in 2012-2013 to 102nd place in 2017-2018. The rating of Belarus in this report is not calculated, but according to the estimates of the Mises Research Center, Belarus ranks 78th in the rating, improving its indicator annually.

Representatives of the World Economic Forum indicate that the competitiveness of national economies is determined by numerous and very diverse factors. The global competitiveness index is compiled on the basis of 113 variables, which in detail characterize the competitiveness of the countries of the world located at different levels of economic development. The combination of two-thirds of the variables consists of the results of a global survey of company executives (to cover a wide range of factors affecting the business climate in the countries under study), and one third of the public sources (statistics and research results carried out on a regular basis by international organizations). All variables are combined into 12 benchmarks that determine national competitiveness:

1. Institutions
2. Infrastructure
3. Macroeconomic environment
4. Health and primary education
5. Higher education and training
6. Goods market efficiency

7. Labor market efficiency
8. Financial market development
9. Technological readiness
10. Market size
11. Business sophistication
12. Innovation

The choice of these variables is determined by theoretical and empirical research, and no single factor is able to ensure the competitiveness of the economy alone. Thus, the effect of increasing educational expenditures can be reduced due to the inefficiency of the labor market, other institutional weaknesses and, as a consequence, the lack of opportunities for graduates to be suitably employed. Attempts to improve the macroeconomic environment, for example, to optimize control over public finances, will be successful only with due transparency of the financial management system, the absence of corruption and large-scale violations. Entrepreneurs will introduce new technologies only if the potential profit exceeds the necessary investments. Thus, according to the conclusions of the World Economic Forum, the most competitive economies are those countries that are able to pursue a comprehensive policy, take into account the full range of factors and the interrelations between them.

Let's consider in detail each participating country of the EAEU for 12 benchmarks that determine national competitiveness, according to the global competitiveness report 2017-2018.

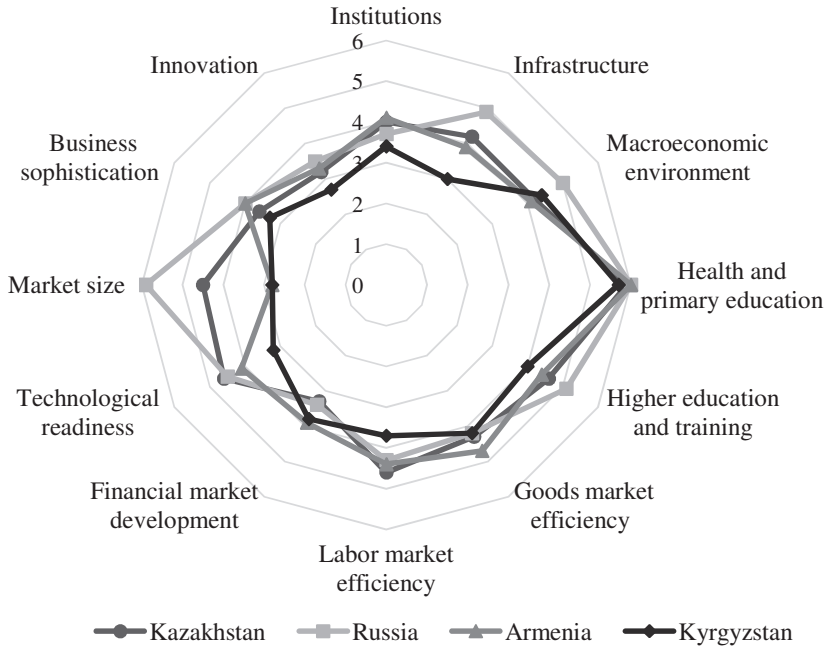


Fig. 1: The countries of the EAEU for 12 benchmarks, 2017-2018

Note – compiled by the author on the basis of the source (The Global Competitiveness Report 2017-2018)

According to figure 1, for the EAEU member countries, the highest scores are observed for the indicator "health and primary education," and the lowest for "innovation". In Russia, the indicator "market size" is also high, and the worst estimates are based on indicators of institutional quality and innovative capacity. Kazakhstan demonstrates the best estimates in this group of countries for several indicators: labor market efficiency and quality of institutions. The lowest estimates for virtually all indicators among the EAEU member countries are shown by Kyrgyzstan, especially in terms of infrastructure and technological development.

According to the global competitiveness report, three stages of development are identified: the stage of factors, the stage based on the growth of efficiency and the stage of innovation, and two transition phases (Table 2). In accordance with the well-known economic theory about the stages of development, at the first stage the economy develops at the expense of factors and the countries compete on the basis of the availability of factors - mainly natural resources and unskilled labor. The maintenance of competitiveness at this stage largely depends on the level of functioning of public private institutions, developed infrastructure, stable macroeconomic environment and labor, which received at least a basic education.

As the country becomes more competitive, productivity and wages will increase. The country will pass to the stage of efficiency growth, when it is necessary to develop more modern production processes and improve the quality of products. At this stage, competitiveness depends on higher education and training, the efficiency of the commodity market, the level of functioning of the labor market, the development of the financial market, the ability to generate income from existing technologies and the size of domestic and foreign markets.

After the stage of increasing efficiency, countries are transitioning to the stage of innovation. At this stage, wages will rise so high that it will be possible to maintain it and become habitually standard of living only if the business competes, offering new and unique products, through new and complex production processes.

Table 2: Country development stages according to the global competitiveness report

Index	1-stage: factor stage	The transition from the 1-stage to the 2-stage	2-stage: efficiency growth stage	The transition from the 2-stage to the 3-stage	3-stage: the stage of innovation
GDP per capita, USD	< 2000	2000 - 2999	3000 - 8999	9000 - 17000	> 17000
Share of basic requirements, %	60	40-60	40	20-40	20
Share of growth factors, %	35	35-50	50	50	50
Share of innovation factors, %	5	5-10	10	10-30	30
Note – based on source (Attachment A of the Global Competitiveness Report 2017-2018)					

In accordance with the global competitiveness report 2017-2018 Kyrgyzstan is at the first stage - the stage of development due to factors. Armenia and Russia are at the development stage on the basis of efficiency growth, and Kazakhstan has significantly passed its positions in the last rating and is in the transition stage from the 1st to the 2nd. According to the International Monetary Fund, the GDP per capita in Kazakhstan in April 2017 was 7453$. With such GDP per capita, Kazakhstan should be in the second stage of development, but for the distribution of countries at the development stage, two criteria are used. First, it is the level of GDP per capita at market exchange rates. The second criterion is used to adjust for countries that, on the basis of income, will go beyond the first stage, but where prosperity is based on the extraction of resources. This is measured by the share of exports of raw materials in total exports (goods and services) and assumes that countries with more than 70 percent of their exports, consisting of mineral products (measured using a five-year average), are in the development stage on the basis of factors.

Thus, it can be noted that the member countries of the EAEU rank low in the global competitiveness ranking. Russia and Kazakhstan show the best results (38th and 57th places, respectively) in the

group. Armenia (73rd place) and Kyrgyzstan (102nd in the rating) are followed by. As it was mentioned earlier, the competitiveness of the Republic of Belarus is not evaluated.

Statistical Data and Analysis

One of the controversial issues that arise when discussing the competitiveness of countries is the issue of factors affecting the competitiveness indicator and the degree of their importance. According to the authors of the study of the Lausanne Institute for Management Development, (IMD), the real engines of the country's competitiveness are science, technology, entrepreneurship, finance, logistics and education.

The multiple regression equation will be constructed next to determine to what extent individual factors affect the competitiveness rating. The main goal of econometric analysis is to build a model, while determining the influence of each factor separately, as well as their combined effect on the indicator under study.

To calculate the degree of dependence of competitiveness on other factors, a sample of fifty countries was used in the global competitiveness report 2017-2018. As factors influencing the competitiveness of countries, the following were singled out:

- Global Innovative Index Report (GII) (Global Innovative Index Report 2017);
- Index of Economic Freedom (IEF) (Index of Economic Freedom Report 2018);
- Logistics Performance Index (LPI) (LPI Latest Ranking).

To calculate the regression parameters, we construct a calculation table, where - the factor attributes – GII, IEF, LPI, and the resultant attribute is the Global Competitiveness Index.

Table 3: Interdependence of the rating of competitiveness and factors

Countries and associations	*GCI*	*GII*	*IEF*	*LPI*
EAEU				
Kazakhstan	4,35	31,5	69,1	2,75
Russia	4,64	38,8	58,2	2,57
Armenia	4,19	35,7	68,7	2,21
Kyrgyzstan	3,9	28	62,8	2,16
EU				
Austria	5,25	53,1	71,8	4,1
Belgium	5,23	49,9	67,5	4,11
Bulgaria	4,46	42,8	68,3	2,81
United Kingdom	5,51	60,9	78	4,07
Hungary	4,33	41,7	66,7	3,43
Germany	5,65	58,4	74,2	4,23
Greece	4,02	38,8	57,3	3,24
Denmark	5,39	58,7	76,6	3,82
Ireland	5,16	58,1	80,4	3,79
Spain	4,7	48,8	65,1	3,73
Italy	4,54	47	62,5	3,76
Cyprus	4,3	46,8	67,8	3
Latvia	4,4	44,6	73,6	3,33
Lithuania	4,58	41,2	75,3	3,63
Luxembourg	5,23	56,4	76,4	4,22
Malta	4,65	50,6	68,5	3,07
Netherlands	5,66	63,4	76,2	4,19

Poland	4,59	42	68,5	3,43
Portugal	4,57	46,1	63,4	3,41
Romania	4,28	39,2	69,4	2,99
Slovakia	4,33	43,4	65,3	3,34
Slovenia	4,48	45,8	64,8	3,18
Finland	5,49	58,5	74,1	3,92
France	5,18	54,2	63,9	3,9

Continuation of table 3

Countries and associations	*GCI*	*GII*	*IEF*	*LPI*
Croatia	4,19	39,8	61	3,16
Czech Republic	4,77	51	74,2	3,67
Sweden	5,52	63,8	76,3	4,2
Estonia	4,85	50,9	78,8	3,36
NAFTA				
Canada	5,35	53,7	77,7	3,93
USA	5,85	61,4	75,7	3,99
Mexico	4,44	35,8	64,8	3,11
ASEAN				
Brunei	4,52	32,9	64,2	2,87
Vietnam	4,36	38,3	53,1	2,98
Indonesia	4,68	30,1	64,2	2,98
Cambodia	3,93	27	58,7	2,8
China	5	52,5	57,8	3,66
India	4,59	35,5	54,5	3,42
Malaysia	5,17	42,7	74,5	3,43
Singapore	5,71	58,7	88,8	4,14
Thailand	4,72	37,6	67,1	3,26
Philippines	4,35	32,5	65	2,86
MERCOSUR				
Argentina	3,95	32	52,3	2,96
Brazil	4,14	33,1	51,4	3,09
Paraguay	3,71	30,3	62,1	2,56
Uruguay	4,15	34,5	69,2	2,97
Chile	4,71	38,7	75,2	3,25

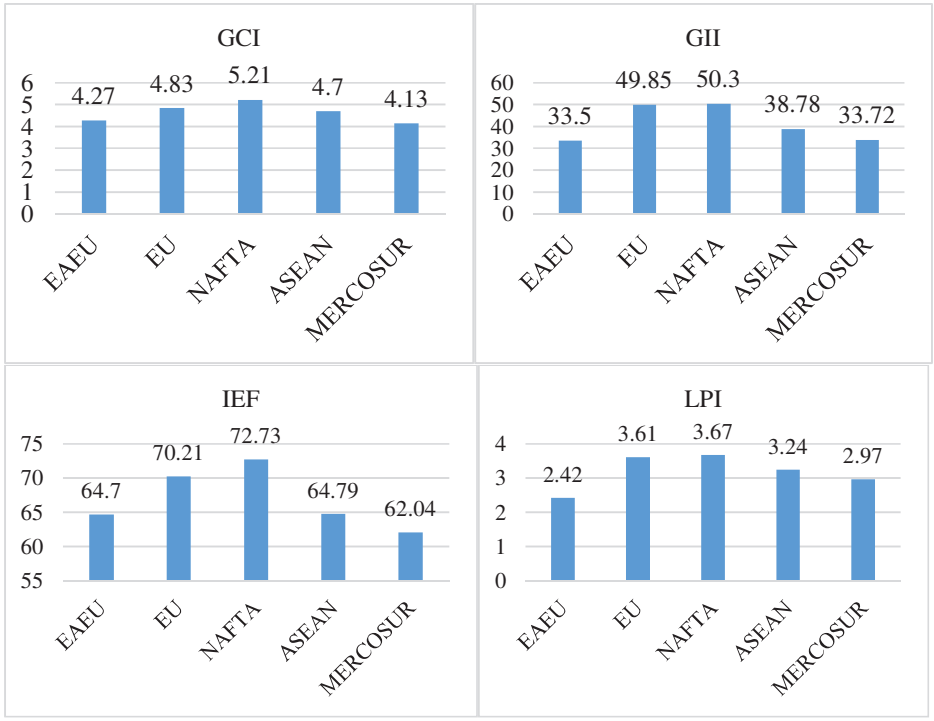
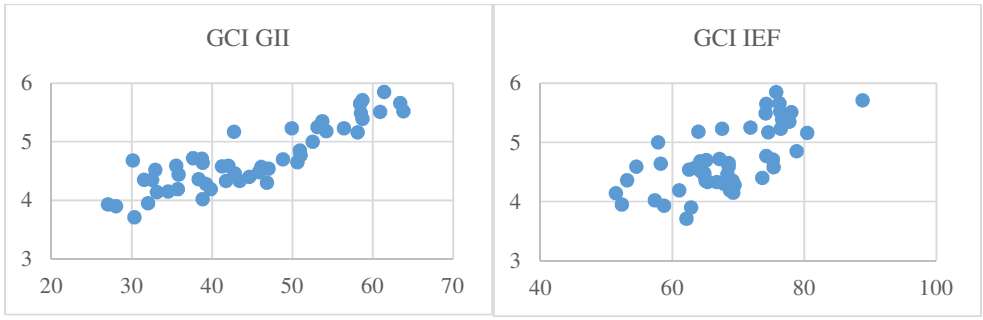


Fig. 2: Average values of the indices of each integration association

The average values were calculated to compare the performance of each integration association. For each of the indices the leading position is occupied by NAFTA, the EU lags behind, ASEAN is at an average level, and the EAEU and MERCOSUR have practically the same indicators and are quite low compared to other groups of countries. But it should be noted that in NAFTA the indicators of Mexico are low, but in integration with the USA and Canada this association has a high level.



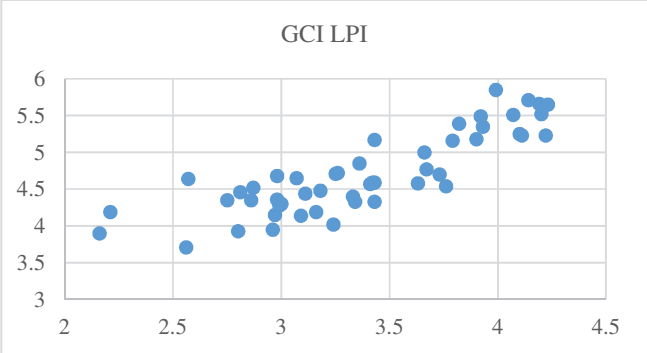


Fig. 3: Interrelation of the global competitiveness index with each factor

Let us examine the connection between GCI and GII, IEF and LPI on the basis of sample data from 50 countries included in different integration associations. Let us construct the multiple regression equation:

$$GCI = \underset{(0,007)}{0,022}\ GII + \underset{(0,006)}{0,014}\ IEF + \underset{(0,122)}{0,375}\ LPI + \underset{(0,343)}{1,525}, \qquad R^2 = 0,83$$

The standard errors are indicated in the parentheses below the estimated coefficients. The coefficient of determination $R^2 = 0,83$, this means that the quality of the regression equation as a whole is quite high. The remaining 17% of GCI changes are explained by factors not included in the model (as well as specification errors).

The estimated coefficients for the GII and LPI variables are statistically significant at the 1 percent level, and at the IEF significance at the 5 percent level.

$$t_{GII} = 3,14, t_{IEF} = 2,33, t_{LPI} = 3,07$$

It follows that there is a statistically significant relationship between GCI and GII, IEF, LPI. As a result of the constructed model, it is seen that an increase in GII per unit leads to an increase in GCI by 0.022 units.

Thus, we can conclude that the real engines of the country's competitiveness, as already noted, are innovations, economic freedom and logistics. It is against these factors that a high and close correlation is observed with the indicator of competitiveness. At the same time, the highest correlation coefficient is observed in the innovation index and the competitiveness index. The next factors on the degree of influence on the competitiveness index are the logistics efficiency index and the rating of economic freedom.

Discussion

The modern innovation process is very complex, dynamic and global, requiring new meters to form an effective innovation policy. With the help of international comparisons, it is possible to identify both the strength and weakness of measures aimed at the formation of a national innovation system. This also gives an opportunity to develop new directions of innovation policy, among which:

- improvement and development of indicators characterizing innovation activity, taking into account the completeness, complexity of the modern innovation process and the dynamism of the processes of globalization;
- activation of the formation of integration processes in the scientific and innovative sphere, the use of various forms of cooperation between the research sector, education and business;

- use of public-private partnership mechanisms to involve small businesses in innovation processes, development of new forms of cooperation;
- expansion of the instruments for stimulating innovation. Most of them are directed to traditional sectors of the economy, to companies focused on the public sector, which limits the tasks of economic restructuring;
- increasing the innovative segment in public procurement, motivating companies to innovate by strengthening requirements in the framework of technical regulation.

The importance of the problem of increasing competitiveness and its relationship with innovation is emphasized in many key documents that determine the ways and directions of the economic development of the republic. Thus, in the state program of industrial and innovative development of the Republic of Kazakhstan for 2015-2019 the main goal was to stimulate diversification and increase competitiveness on the basis of giving a new level of technology to priority sectors and the formation of innovative clusters (the State Program of Industrial and Innovative Development of the Republic of Kazakhstan for 2015-2019).

Fig. 4: Level of innovation activity of enterprises and organizations in Kazakhstan for 2004 - 2016, %

Note – compiled from the source (Data of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan)

Let's consider the current state of innovation activity in the Republic of Kazakhstan. Figure 4 shows that the innovative activity of enterprises in Kazakhstan has increased significantly since 2004, and has a constant trend towards growth, but still at a low level.

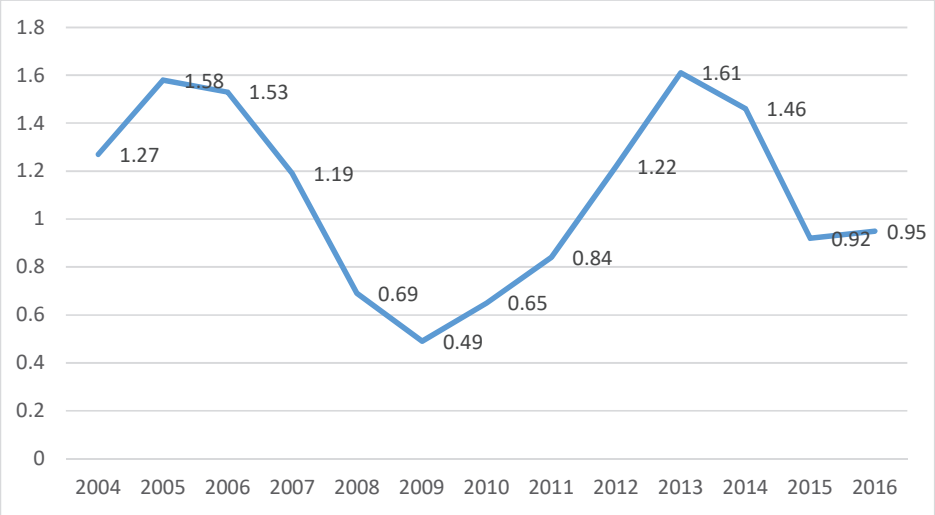


Fig. 5: Share of innovative products produced in relation to GDP in Kazakhstan for 2004-2016, %

Note – compiled from the source (Data of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan)

The graph above shows that in the last 2 years the output of innovative products has declined. This is due to the lack of funding for R & D. To improve the quality of innovative activities, scientific research should be developed.

The modern processes of globalization and the slow pace of world economic growth make it necessary to search for new sources of development. In this regard, factors such as science, technology and innovation that contribute to increasing the level of competitiveness of the national economy, come to the fore.

Success in the market is provided, as a rule, by "basic" or "radical" innovations, based on the implementation of fundamentally new technical and technological solutions. It should be noted that in our republic the modernization of existing production facilities, taking into account modern requirements, often acts as a strategy of "catching up" development, since "improving" innovations predominate, the degree of novelty in which is not so high and the changes are superficial and external. Accordingly, the effectiveness in the innovation sphere remains low.

To increase innovation activity, which will lead to an increase in the competitiveness of the economy, we propose the following measures:

– to build an effectively functioning vertical of interaction between science and engineering with an integrated mechanism for investing innovative projects; in this spectrum of solution of the problem we are talking about the modernization of the basic industries (oil and gas, petrochemical, energy, transport, telecommunications, etc.). As a result, a matrix system of interaction between science and various types of engineering is formed-from production (development of the type of a new product, know-how) to a service system with implementation in the basic branches of the economy. The vertical bundle includes fundamental, applied science, various types of engineering - production, production, service. As a result, a matrix of productions is formed, consisting of scientific, engineering, manufacturing companies linked by supply chains of products, services, human resources, etc .;
– create at least one domestic company or a joint venture with a dominant position of the Kazakh side at each level of the matrix of science and engineering in basic industries, since in a real network

of interaction between science and production in the basic branches of the Republic there are mainly foreign companies;
– intensify the activity of development institutions in the field of financing and attracting investments in the implementation of innovative projects;
– improve tax management tools for innovation processes. It is advisable to practice foreign experience of tax regulation of innovative development: exemption from taxation of profits received from the implementation of innovative projects; discount on profit in the amount of investment in new equipment and construction; discount from income tax in the amount of expenditure on R & D.

Conclusion

After analyzing the competitiveness of the EAEU member countries and the factors that determine it, it can be concluded that in the countries surveyed, the competitiveness of both individual countries and the group as a whole, relative to the world competitiveness indicators, is low. In the global competitiveness rating, the countries participating in the EAEU take a middle position both for certain factors and for the index of global competitiveness.

For each of the factors that affect the competitiveness of the economy, the leading position is occupied by NAFTA, followed by the EU, ASEAN is at an average level, and EAEU and MERCOSUR have practically the same indicators and are quite low compared to other groups of countries. To increase competitiveness in the global market of the EAEU in general and separately each participating country should adopt foreign experience from such associations as NAFTA and the EU, especially in the policy of innovation activity development.

Based on the analysis of the competitiveness rating, a number of directions of its increase are revealed through stimulation of innovation activity. Kazakhstan's national interests require the provision of comprehensive security in the implementation of innovation policies across the spectrum. Kazakhstan needs to act without delay in order to avoid the growth of the technological gap, a hopeless lag from competitors and the growth of dependence. Moreover, there is a favorable innovative climate in the country and the corresponding infrastructure is being actively formed.

References

Chirisa, I., Mumba, A. and Dirwai, S. (2014) ‘A review of the evolution and trajectory of the African Union as an instrument of regional integration,’ *SpringerPlus*. [Online], [Retrieved February 12, 2018], https://link.springer.com/article/10.1186/2193-1801-3-101

Data of Mises Research Center "Strategy". [Online], [Retrieved February 16, 2018], http://liberty-belarus.info/ekonomika-belarusi.

Data of the Statistics Committee of the Ministry of National Economy of Kazakhstan. [Online], [Retrieved February 15, 2018], http://stat.gov.kz/faces/wcnav_externalId/homeNumbersScience;jsessionid=DhrDadgstPpgkEVxe_ljC9OKN_LXO00ZyRsHGRjcA96ql8Y7uEF0!1813830452!1849616137? lang=ru&_afrLoop=3966862063644886#%40%3F_afrLoop%3D3966862063644886%26lang%3Dru%26_adf .ctrl-state% 3Dw65xqa983_4

Global Innovative Index Report 2017. [Online], [Retrieved February 16, 2018], https://www.globalinnovationindex.org/gii-2017-report

Gurova, I.P. (2008) World economy, Omega-L, Moscow.

Index of Economic Freedom Report 2018. [Online], [Retrieved February 16, 2018], https://www.heritage.org/index/ranking

Kahouli, B and Kadhraoui, N. (2012), 'Consolidation of Regional Groupings and Economic Growth: Empirical Investigation by the Panel Data,' *International Journal of Euro-Mediterranean Studies,* 5 (1), 71-92.

Kolesov, V.P and Osmova, M.N. (2001) World economy. Economics of foreign countries, Flint, Moscow.

LPI Latest Ranking. [Online], [Retrieved February 16, 2018], https://lpi.worldbank.org/international/global

Soomer J. (2003) 'Why Regional Integration Benefits?', *Google Scholar.* [Online], [Retrieved February 14, 2018], http://www.eccb-centralbank.org/PDF/newspaper3.pdf

Temirbekova, A.B., Uskelenova, A.T., Boluspaev, S.A and Aldabergenov N.A. (2015) 'Influence of integration on the competitiveness of the national economy (by the example of the AIC)', *EEI*, 1 (26), 95-118.

The Global Competitiveness Index 2012-2013 Rankings. [Online], [Retrieved February 17, 2018], www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2012-13.pdf

The Global Competitiveness Index 2013-2014 Rankings. [Online], [Retrieved February 17, 2018], www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf

The Global Competitiveness Index 2014-2015 Rankings. [Online], [Retrieved February 17, 2018], www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf

The Global Competitiveness Index 2015-2016 Rankings. [Online], [Retrieved February 17, 2018], http://www3.weforum.org/docs/gcr/2015-2016/Global_Competitiveness_Report_2015-2016.pdf

The Global Competitiveness Index 2016-2017 Rankings. [Online], [Retrieved February 17, 2018], http://www3.weforum.org/docs/GCR2016-017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf

The Global Competitiveness Index 2017-2018 Rankings. [Online], [Retrieved February 17, 2018], http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport 2017 %E2%80%932018.pdf

The State Program of Industrial and Innovative Development of the Republic of Kazakhstan for 2015-2019. [Online], [Retrieved February 20, 2018], http://kidi.gov.kz/analitika/programma-industrializatsii/2015-2019-gg